

ABSTRACT OF THE DISCLOSURE

A method for creating refractive index changes in a substrate is provided by irradiating the substrate with infrared (IR) or visible light radiation. Ultra-violet (UV) radiation is generated in the substrate responsive to the IR or visible light radiation such that

5 the change in the refractive index of the substrate is generated responsive to the UV radiation.

Preferably, the substrate comprises a glass doped with rare earth ions.

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